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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,574	12/29/2000	Cary Lee Bates	IBM/ 166	8366

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EXAMINER
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HUYNH, CONG LAC T

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/751,574

Applicant(s)

BATES ET AL.

Examiner

Cong-Lac Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39, 42 and 43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39, 42-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

1. In view of the appeal brief filed on 3/30/06, PROSECUTION IS HEREBY REOPENED. The new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

  
STEPHEN HONG  
SUPERVISORY PATENT EXAMINER

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 37-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding independent claim 37 and its dependent claim 38, a computer-readable medium bearing the program product as claimed is a signal, not a physical structure, which permits the functionality to be realized with the computer. The program product, thus, is non-statutory. See MPEP 2106 IV.

Claim 39 is rejected under the same issue.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-4, 9, 11-12, 21-26, 30, 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravin et al. (US Pat No. 5,819,265, filed 7/12/96).

Regarding independent claim 1, Ravin discloses:

- scanning a plurality of documents for variants of a linguistic term (col 3, lines 1-16)
- tracking relative occurrences of a plurality of variants of the linguistic term found in the plurality of documents during scanning to determine an acceptable usage of the linguistic term (col 6, lines 37-45, col 7, lines 8-31, line 60 to col 8, line 9)

Ravin does not explicitly disclose that each variant of the linguistic term found in each document is of the type that is intentionally chosen by an author of such document.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have included the feature that each variant of the linguistic term found in each document is of the type intentionally chosen by the author of such document since these variants are found from the documents written by the document authors, who use these words to generate documents.

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Regarding claim 2, which is dependent on claim 1, Ravin discloses retrieving the plurality of documents from a network, wherein scanning the plurality of documents includes scanning each document subsequent to retrieval of the document from the network (figure 1, col 3, lines 1-12).

Regarding claim 3, which is dependent on claim 2, Ravin discloses retrieving the plurality of documents from a network (figure 1, col 3, lines 1-12). Ravin further discloses that the documents to be scanned in his invention are Internet documents (col 23, lines 52-58: "...employ human readers to *scan news articles* ... human readers also classify *online* documents ..."; col 24, lines 13-19: "... because of the diversity of content on the Internet, variants may be ambiguous ..."). This shows that retrieving the plurality of documents from at least one Internet web site in response to a user browsing the at least one Internet web site, and wherein scanning the plurality of documents includes scanning each document upon retrieval of that document from the at least one Internet web site.

Regarding claim 4, which is dependent on claim 2, Ravin does not disclose explicitly determining whether a retrieved document has already been scanned before scanning the retrieved document. However, it would have been obvious to an ordinary skill in the art at the time of the invention was made to incorporate such determining into Ravin since in programming, checking whether an action is performed before performing the

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action is well known. Thus, the combination of said determining into Ravin would save time when carrying out a step in a process.

Regarding claim 9, which is dependent on claim 1, Ravin discloses that the linguistic term comprises a single word (figure 2, col 6, lines 6-17).

Regarding claim 11, which is dependent on claim 1, Ravin discloses that the linguistic term comprises an acronym (col 15, lines 14-22).

Regarding claim 12, which is dependent on claim 1, Ravin discloses that the plurality of variants differ from one another based upon at least one of punctuation, spelling, capitalization, hyphenation, and definition (col 1, line 65 to col 2, line 8, col 19, lines 16-20, col 6, lines 6-17).

Regarding claim 21, which is dependent on claim 1, Ravin discloses that the documents to be scanned for the variants are Internet documents (col 23, line 50 to col 24, line 2). Ravin further discloses that in spell checking, "identifying proper names and treating all variants as instances of the same canonical form will reduce the false alarms for misspelling that the checker normally outputs to the user. Once a canonical form was entered into the dictionary, all of the variants will be accepted as correctly spelled as well" (col 24, lines 7-13) where this spell checking performed via identifying canonical

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form is performed in the Internet. This implies using a spell checking tag to identify a variant of the linguistic term when scanning a document for a variant.

Regarding claim 22, which is dependent on claim 1, Ravin discloses scanning the plurality of documents and tracking relative occurrences are performed responsive to detecting a variant of the linguistic term during spell checking of a document (col 6, lines 37-45, col 7, lines 8-31, line 60 to col 8, line 9, col 23, lines 52-58).

Regarding independent claim 23, Ravin discloses:

- browsing a plurality of web sites on the Internet in response to user input (col 23, lines 52-58)
- tracking relative occurrences of a plurality of variants of a linguistic term found in the plurality of web sites to determine an acceptable usage of the linguistic term (col 6, lines 37-45, col 7, lines 8-31, line 60 to col 8, line 9)

Ravin does not explicitly disclose that each variant of the linguistic term found in each document is of the type that is intentionally chosen by an author of such document.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have included the feature that each variant of the linguistic term found in each document is of the type intentionally chosen by the author of such document since these variants are found from the documents written by the document authors, who use these words to generate documents.



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Claims 24-26 are for an apparatus of method claims 1, 2, 4, and are rejected under the same rationale.

Claims 30 and 36 are for an apparatus of method claims 12 and 21, and are rejected under the same rationale.

Claims 37-38 are for a program product of method claim 1, and is rejected under the same rationale.

Claim 39 is for a program product of method claim 23, and is rejected under the same rationale.

7. Claims 5-8,10, 13-14, 16,18-20, 27-29, 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravin as applied to claim 1 above, and further in view of Zimmermann et al. (US Pat No. 6,678,694, filed 11/8/00).

Regarding claim 5, which is dependent on claim 2, Ravin does not disclose determining whether to scan a retrieved document based upon a source parameter associated with the linguistic term.

Zimmermann discloses determining whether to scan a retrieved document based upon a source parameter associated with the linguistic term (col 8, line 62 to col 9, line 17, col 10, lines 51-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Zimmermann into Ravin since determining whether to scan a retrieved document based upon a source parameter associated with the linguistic term in Zimmermann would help to eliminate retrieving all the documents that do not relate to the linguistic term in Ravin.

Regarding claim 6, which is dependent on claim 1, Ravin not disclose browsing a second plurality of documents retrieved from at least one Internet web site in response to user input, wherein scanning the first plurality of documents is performed concurrently with browsing the second plurality of documents.

Zimmermann discloses retrieving the plurality of documents from at least one Internet web site in response to a user browsing the at least one Internet web site, and wherein scanning the plurality of documents includes scanning each document upon retrieval of that document from the at least one Internet web site (col 1, lines 15-17, col 3, lines 1-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Zimmermann to include browsing a second plurality of documents in response to user input concurrently with browsing the first plurality of documents and combined with Ravin since the fact a plurality of documents of different topics are scanned to be retrieved in Zimmermann suggests that a first plurality of documents of one type are concurrently browsed with another plurality of documents of another type.

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Regarding claim 7, which is dependent on claim 1, Ravin does not disclose that scanning the first plurality of documents is performed in a background thread while documents from the second plurality of documents are being browsed.

Zimmermann discloses retrieving the plurality of documents from at least one Internet web site in response to a user browsing the at least one Internet web site, and wherein scanning the plurality of documents includes scanning each document upon retrieval of that document from the at least one Internet web site (col 1, lines 15-17, col 3, lines 1-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Zimmermann to include scanning the first plurality of documents is performed in a background thread while documents from the second plurality of documents are being browsed for the following reason. Zimmermann discloses scanning a plurality of documents of various topics. This suggests that documents of different topics are scanned parallelly in different threads to retrieve a result for a query. The combination of Zimmermann into Ravin would make the retrieval process faster.

Regarding claim 8, which is dependent on claim 7, Ravin and Zimmermann do not disclose that scanning the first plurality of documents includes scanning documents stored in a local history cache. However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Ravin and Zimmermann to incorporate scanning documents stored in a local history cache since it

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was well known that cache is a local storage of a computer with a plurality of stored documents. Therefore, scanning documents includes documents stored in cache.

Regarding claim 10, which is dependent on claim 1, Ravin discloses that the linguistic term comprises a phrase (col 8, lines 10-67: a sentence token is a search term comprising a phrase, figure 13).

Regarding claim 13, which is dependent on claim 1, Ravin discloses that scanning the plurality of documents includes scanning a document for an enumerated variant of the linguistic term (col 7, line 60 to col 8, line 9: all variants are grouped together).

Regarding claim 14, which is dependent on claim 1, Ravin discloses that scanning the plurality of documents includes scanning a document for an unenumerated variant of the linguistic term (col 6, line 46 to col 7, line 4).

Regarding claim 16, which is dependent on claim 1, Ravin discloses that tracking relative occurrences of the plurality of variants includes weighting occurrences based upon locations of such occurrences within the plurality of documents (col 18, line 32 to col 19, line 15: confidence scores based on the location of the name shows weighting based on locations of occurrences in documents; col 5, lines 25-38).

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Regarding claim 18, which is dependent on claim 1, Ravin discloses storing a variant of the linguistic term in an electronic dictionary (col 5, lines 25-38, col 6, lines 37-45).

Regarding claim 19, which is dependent on claim 18, Ravin discloses spell checking a document using the electronic dictionary subsequent to storing the variant in the electronic dictionary (col 24, lines 7-12).

Regarding claim 20, which is dependent on claim 1, Ravin discloses tracking relative occurrences of the plurality of variants includes storing context information associated with each occurrence of a variant of the linguistic term (col 7, lines 8-51).

Claims 27-28 are for an apparatus of method claims 5, 7, and are rejected under the same rationale.

Claims 29, 31-35 are for an apparatus of method claims 10, 13-14, 16, 19, 20 and are rejected under the same rationale.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravin as applied to claims 1 and 14 above, and further in view of Komissarchik et al. (US Pat No. 5,799,276, 8/25/98, filed 11/7/95).

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Regarding claim 15, which is dependent on claim 14, Ravin does not disclose that scanning the document for the unenumerated variant of the linguistic term includes scanning the document using phonetic comparison.

Komissarchik discloses that a single phonetic transcription of a word in a dictionary can be replaced with *a plurality of phonetic transactions of phonetically permissible variants of the word* (col 3, line 63 to col 4, line 15 and col 11, line 50 to col 12, line 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Komissarchik into Ravin since Komissarchik teaches that it is possible to replace a word in a dictionary with phonetically permissible variants of the word thus motivating to phonetically scanning documents for the variants of a word instead of lexically scanning as in Ravin utilizing the phonetic comparison.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ravin as applied to claim 1 above, and further in view of Anick et al. (US Pat No. 6,519,586 B2, 2/11/03, filed 8/6/99).

Regarding claim 17, which is dependent on claim 1, Ravin does not disclose that tracking relative occurrences of the plurality of variants includes weighting occurrences based upon document types of the documents within which such occurrences are found.

Anick discloses that tracking relative occurrences of the plurality of variants includes weighting occurrences based upon document types of the documents within which such

occurrences are found (figure 3B, col 10, lines 12-24, col 3, lines 51-67: weighting the density of the terms, which is equivalent to the term occurrences, in a document where a document can be a form of articles, papers, statements, correspondence, etc.).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Anick into Peterman for obtaining an effective way to track the relative occurrences of the variants based on the document type rather than tracking all of the documents, which helps speeding up the tracking process.

10. Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravin et al. (US Pat No. 5,819,265, filed 7/12/96) in view of Angiulo et al. (US Pat No. 6,044,387, 3/28/00, filed 9/10/97).

Regarding independent claim 42, Ravin discloses:

- detecting a tag within a document retrieved from the Internet that identifies an acceptable variant of a linguistic term for carrying out spell checking (col 23, lines 52-58, col 24, lines 7-12: identifying accepted variants of a term on the Internet when spell checking for searching information in the Internet or scanning the online documents implies that when carrying out spell checking, said identifying is performed via detecting a tag in an Internet document for identifying an acceptable variant)

Ravin does not disclose:

- in response to detecting said tag, automatically adding the acceptable variant of the linguistic term to an electronic dictionary

Angiulo discloses:

- spell checking the web documents where the terms that do not constitutes a properly spelled word are identified and prompted to users with several suggested replacements or a user can enter a word to replace the incorrect word (col 2, lines 25-67, col 4, line 36 to col 5, line 16, col 1, lines 11-49)
- in response to detecting the misspelled word, automatically adding the correct word of said misspelled word to an electronic dictionary (col 6, lines 40-63)

Therefore, it would have been obvious at the time of the invention was made to combine Angiulo into Ravin for the following reason. Angiulo discloses automatically adding the correct word of a misspelled word to a dictionary as in a conventional spell checking in response to detecting a misspelled word, thus motivating to incorporating the analogous process into Ravin for automatically adding the accepted variants of a term identified in response to detecting a tag in the Internet document when scanning the Internet document.

Regarding claim 43, Ravin does not disclose explicitly that detecting the spell definition tag is performed during user browsing of the Internet.

However, Ravin does teach detecting variants of a term via spell checking the Internet documents (col 23, line 52 to col 24, line 19). It would have been obvious at the time of the invention was made to have modified Ravin to incorporate detecting the spell



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definition tag since the above feature in Ravin implies that during user browsing of the Internet, spell checking the Internet documents should be performed to detect the spell tag identifying variants of a term.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rau (US Pat No. 5,287,278, filed 1/27/92).

Horowitz et al. (US Pat No. 6,236,987, filed 4/3/98).

Kuo et al. (US Pat No. 6,845,354, filed 9/9/99).

Byrd, Jr. et al. (US Pat No. 5,832,480, filed 7/12/96).

Liddy et al. (US Pat No. 6,026,388, filed 6/14/96).

Woods (US Pat App Pub No. 2001/0000356, filed 12/12/00, priority 2/11/98).

Nakamura et al. (US Pat App Pub No. 2003/0074375, priority 8/11/00).

Jenssen et al. (US Pat App Pub No. 2003/0225773, priority 12/21/01).

Jensen et al. (US Pat App Pub No. 2005/0027702, priority 2/25/99).

Gold, The Language of Electronic Searching: A Search Terms Glossary, Google November 2001, pages 1-13.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cong-Lac Huynh whose telephone number is 571-272-4125. The examiner can normally be reached on Mon-Fri (8:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-4125.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cong-Lac Huynh  
Primary Examiner  
Art Unit 2178  
06/07/06